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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,860	07/15/2003	Antonio S. Cruz-Urbe	200309104-1	9136

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HEWLETT PACKARD COMPANY
P O BOX 272400, 3404 E. HARMONY ROAD
INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER

TENTONI, LEO B

ART UNIT	PAPER NUMBER
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1732

DATE MAILED: 07/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.



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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 10/620,860
Filing Date: July 15, 2003
Appellant(s): CRUZ-URIBE ET AL.

Steven L. Nichols
For Appellant

EXAMINER'S ANSWER

MAILED
JUL 20 2006
GROUP 1700

This is in response to the appeal brief filed on 12 May 2006
appealing from the Office action mailed 20 December 2005.

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(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

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(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,364,986 B1	KIERONSKI	04-2002
DE 19537264 A1	GREUL ET AL	04-1997

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-26, 37 and 39-42 are rejected under 35

U.S.C. 102(b) as being anticipated by Kieronski (U.S. Patent 6,364,986 B1).

Kieronski (see the entire document, in particular, col. 2, line 1 to col. 4, line 63) teaches a process of making a three-dimensional object by solid freeform fabrication wherein the

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boundary structure is formed by stereolithography (which meets the limitation of "selectively depositing").

Claims 1-26 and 39-42 are rejected under 35 U.S.C. 102(b) as being anticipated by Greul et al (DE 19537264 A1).

Greul et al (see the entire document, in particular, Figures 1 and 2; see also the English-language translation, especially page 4) teaches a process of making a three-dimensional object by solid freeform fabrication wherein the boundary structure is formed by selective deposition modeling.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to

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point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kieronski (U.S. Patent 6,364,986 B1).

Kieronski (see the entire document, in particular, col. 2, line 1 to col. 4, line 63) teaches a process of making a three-dimensional object by solid freeform fabrication as claimed, except that Kieronski does not explicitly teach selective deposition modeling, which would have been obvious to one of ordinary skill in the art at the time the invention was made in the process of Kieronski principally because selective deposition modeling and stereolithography are two of the common techniques used in solid freeform fabrication.

Claims 27-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Greul et al (DE 19537264 A1).

Greul et al (see the entire document, in particular, Figures 1 and 2; see also the English-language translation) teaches a process of making a three-dimensional object by solid freeform fabrication as claimed, except for the aspects of a plurality of perimeter (or boundary) structures and porous

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products, which would have been obvious to one of ordinary skill in the art at the time the invention was made in the process of Greul et al principally in order to manufacture a desired final object.

(10) Response to Argument

With respect to claims 7 and 27, the recitation "selectively depositing" does not exclude the solid freeform fabrication technique of stereolithography, and these claims are not limited to, for example, the solid freeform fabrication techniques of selective deposition modeling or three-dimensional printing. Also, the preamble of claims 7 and 27 recites "solid freeform fabrication" and does not further limit the claims to a particular solid freeform fabrication technique. Thus, there is nothing unreasonable about the examiner's interpretation of the recitation of "selectively depositing" and, in fact, the examiner has correctly given the recitation "selectively depositing" its broadest reasonable interpretation and both Kieronski and Greul et al meet the claimed limitation of "selectively depositing". Concerning the obviousness rejection based on Kieronski, the motivation to modify Kieronski is that stereolithography and selective deposition modeling are two of the common techniques used in solid freeform fabrication. Concerning the rejections based on Greul et al, page 4 of the

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English-language translation teaches a layered deposition technique.

With respect to claims 1 and 39, there is nothing unreasonable about the examiner's interpretation of the recitation of "selectively depositing" and, in fact, the examiner has correctly given the recitation "selectively depositing" its broadest reasonable interpretation and both Kieronski and Greul et al meet the claimed limitation of "selectively depositing".

With respect to claim 37, Kieronski teaches the claimed limitations (see, in particular, col. 2, line 1 to col. 4, line 63 and the figures).

With respect to claim 8, the particular support structure used (or deposited) depends on, among other things, the particular type of manufactured product (especially its shape) and for at least this reason, a sparse array support structure is either inherent in Kieronski or Greul et al, or would have been obvious to one of ordinary skill in the art at the time the invention was made in view of either Kieronski or Greul et al.

With respect to claim 18, removing (e.g., melting) support structure is done in solid freeform fabrication in order to remove the support structure from the manufactured product and for at least this reason, removing support structure is either

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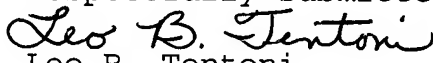
inherent in Kieronski or Greul et al, or would have been obvious to one of ordinary skill in the art at the time the invention was made in view of either Kieronski or Greul et al.

With respect to claim 29, adjusting a volume of build material is necessary in a solid freeform fabrication process in order to provide only the amount of build material needed and for at least this reason, adjusting a volume of build material is either inherent in Kieronski or Greul et al, or would have been obvious to one of ordinary skill in the art at the time the invention was made in view of either Kieronski or Greul et al.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Leo B. Tentoni

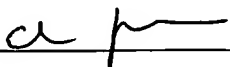
Primary Examiner, GAU 1732

Application/Control Number: 10/620,860

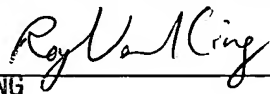
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Conferees:



Christina Johnson, SPE GAU 1732



ROY KING

Roy King, SPE GAU 1742
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700